

Kutei Basin Turbidites, Assessment Unit 38170102
Assessment Results Summary

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. MFS, minimum field size assessed (MMBO or BCFG). Prob., probability (including both geologic and accessibility probabilities) of at least one field equal to or greater than the MFS. Results shown are fully risked estimates. For gas fields, all liquids are included under the NGL (natural gas liquids) category. F95 represents a 95 percent chance of at least the amount tabulated. Other fractiles are defined similarly. Fractiles are additive under the assumption of perfect positive correlation. Shading indicates not applicable]

Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field (MMBO or BCFG)			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)				F95	F50	F5	Mean
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean				
Oil Fields	5	1.00	952	3,326	6,979	3,569	2,500	8,998	20,781	9,990	139	523	1,307	599	210	654	2,031	815
Gas Fields	30						3,329	14,145	33,198	15,697	80	346	858	392	904	3,238	11,093	4,196
Total		1.00	952	3,326	6,979	3,569	5,829	23,143	53,979	25,687	219	869	2,165	991				

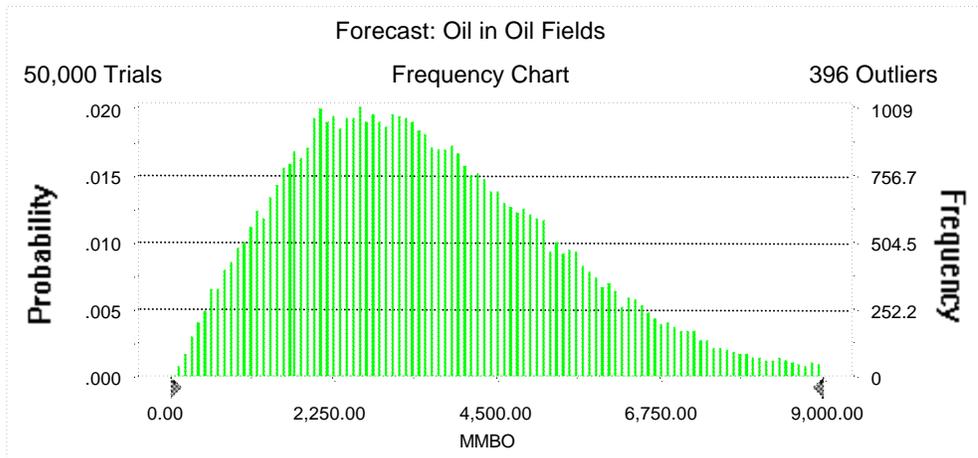
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 9,000.00 MMBO
Entire range is from 74.50 to 14,351.40 MMBO
After 50,000 trials, the standard error of the mean is 8.34

Statistics:	Value
Trials	50000
Mean	3,569.18
Median	3,326.37
Mode	---
Standard Deviation	1,864.83
Variance	3,477,603.49
Skewness	0.72
Kurtosis	3.50
Coefficient of Variability	0.52
Range Minimum	74.50
Range Maximum	14,351.40
Range Width	14,276.90
Mean Standard Error	8.34



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	74.50
95%	952.38
90%	1,352.24
85%	1,658.15
80%	1,926.43
75%	2,162.60
70%	2,399.01
65%	2,630.24
60%	2,861.42
55%	3,095.64
50%	3,326.37
45%	3,568.50
40%	3,825.07
35%	4,098.45
30%	4,392.53
25%	4,723.13
20%	5,090.42
15%	5,530.82
10%	6,094.80
5%	6,979.26
0%	14,351.40

End of Forecast

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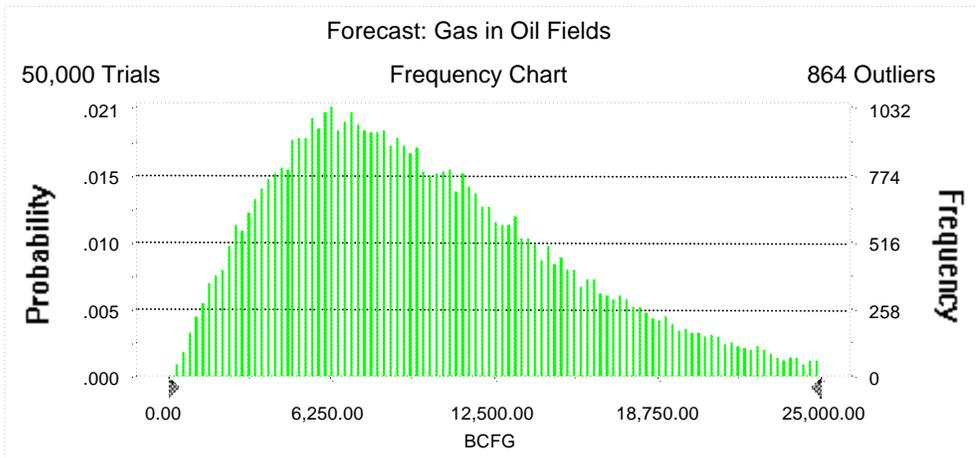
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 25,000.00 BCFG
 Entire range is from 149.51 to 45,867.67 BCFG
 After 50,000 trials, the standard error of the mean is 25.58

Statistics:

	<u>Value</u>
Trials	50000
Mean	9,990.31
Median	8,997.96
Mode	---
Standard Deviation	5,720.67
Variance	32,726,024.79
Skewness	0.98
Kurtosis	4.28
Coefficient of Variability	0.57
Range Minimum	149.51
Range Maximum	45,867.67
Range Width	45,718.17
Mean Standard Error	25.58



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	149.51
95%	2,499.98
90%	3,512.93
85%	4,345.15
80%	5,078.52
75%	5,740.23
70%	6,372.01
65%	7,012.61
60%	7,643.56
55%	8,308.06
50%	8,997.96
45%	9,714.72
40%	10,511.58
35%	11,326.15
30%	12,207.92
25%	13,241.74
20%	14,427.39
15%	15,848.15
10%	17,762.29
5%	20,780.80
0%	45,867.67

End of Forecast

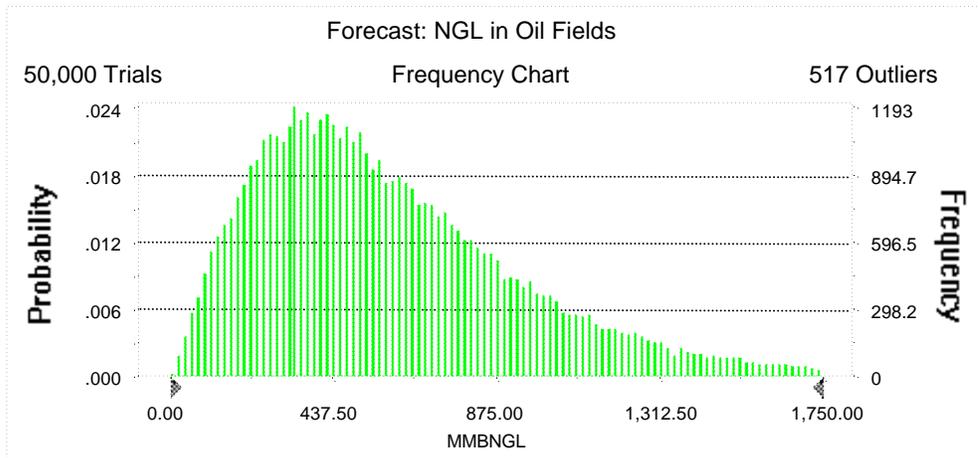
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 1,750.00 MMBNGL
Entire range is from 8.25 to 3,461.39 MMBNGL
After 50,000 trials, the standard error of the mean is 1.66

Statistics:	Value
Trials	50000
Mean	598.92
Median	523.21
Mode	---
Standard Deviation	370.86
Variance	137,534.83
Skewness	1.22
Kurtosis	5.27
Coefficient of Variability	0.62
Range Minimum	8.25
Range Maximum	3,461.39
Range Width	3,453.14
Mean Standard Error	1.66



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	8.25
95%	138.80
90%	198.25
85%	245.66
80%	286.30
75%	327.33
70%	365.47
65%	403.90
60%	442.30
55%	482.47
50%	523.21
45%	569.38
40%	618.65
35%	670.13
30%	728.54
25%	792.95
20%	868.49
15%	966.34
10%	1,096.80
5%	1,307.29
0%	3,461.39

End of Forecast

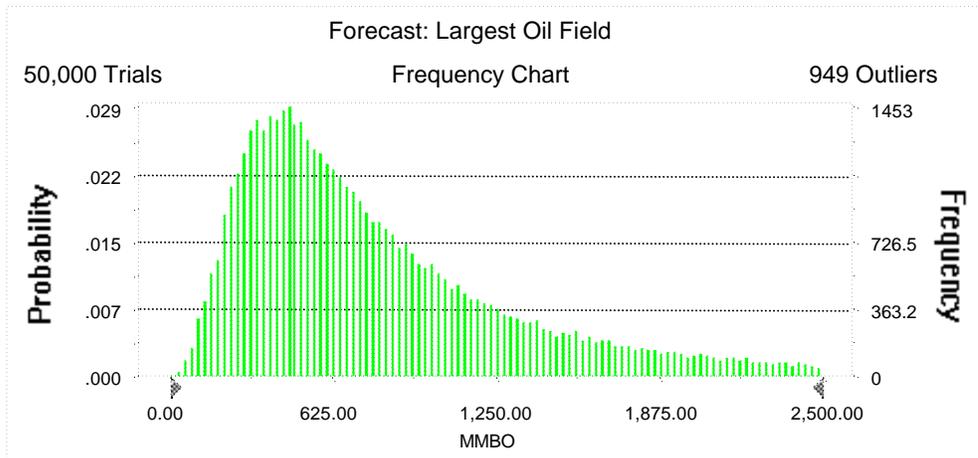
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 2,500.00 MMBO
Entire range is from 26.75 to 2,998.36 MMBO
After 50,000 trials, the standard error of the mean is 2.52

Statistics:	Value
Trials	50000
Mean	815.49
Median	653.86
Mode	---
Standard Deviation	563.17
Variance	317,163.21
Skewness	1.41
Kurtosis	4.83
Coefficient of Variability	0.69
Range Minimum	26.75
Range Maximum	2,998.36
Range Width	2,971.61
Mean Standard Error	2.52



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	26.75
95%	210.09
90%	270.73
85%	320.98
80%	366.75
75%	412.57
70%	456.07
65%	500.87
60%	547.75
55%	599.52
50%	653.86
45%	714.30
40%	781.29
35%	859.61
30%	947.11
25%	1,053.32
20%	1,187.54
15%	1,364.19
10%	1,616.04
5%	2,031.15
0%	2,998.36

End of Forecast

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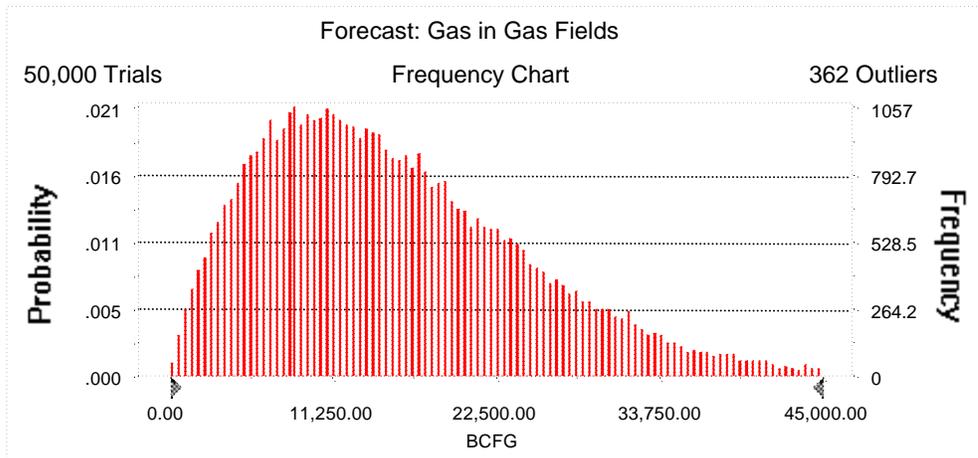
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 45,000.00 BCFG
 Entire range is from 52.23 to 77,123.11 BCFG
 After 50,000 trials, the standard error of the mean is 41.95

Statistics:

	<u>Value</u>
Trials	50000
Mean	15,696.98
Median	14,144.98
Mode	---
Standard Deviation	9,380.93
Variance	88,001,770.76
Skewness	0.89
Kurtosis	3.83
Coefficient of Variability	0.60
Range Minimum	52.23
Range Maximum	77,123.11
Range Width	77,070.88
Mean Standard Error	41.95



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	52.23
95%	3,329.00
90%	4,937.73
85%	6,242.89
80%	7,417.48
75%	8,550.12
70%	9,645.96
65%	10,751.69
60%	11,835.69
55%	12,978.15
50%	14,144.98
45%	15,359.09
40%	16,672.04
35%	18,015.63
30%	19,519.70
25%	21,283.04
20%	23,202.61
15%	25,461.84
10%	28,543.25
5%	33,198.31
0%	77,123.11

End of Forecast

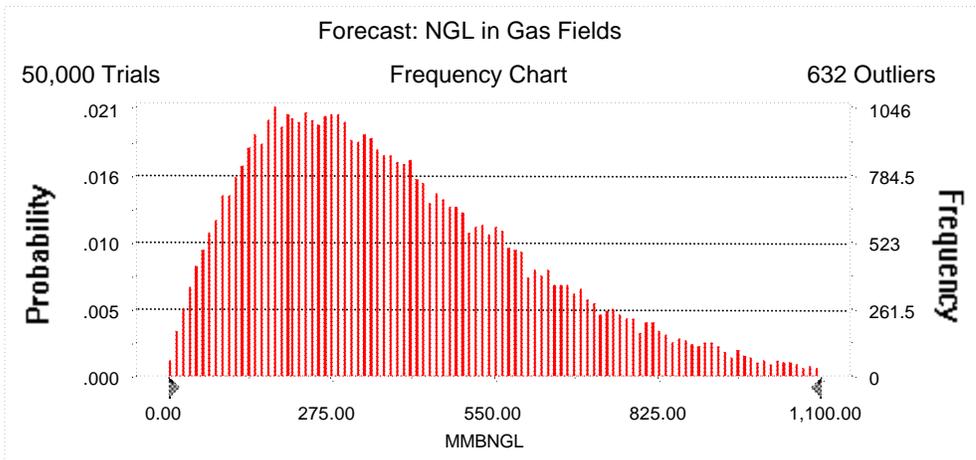
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 1,100.00 MMBNGL
 Entire range is from 1.30 to 2,091.15 MMBNGL
 After 50,000 trials, the standard error of the mean is 1.10

Statistics:	<u>Value</u>
Trials	50000
Mean	392.26
Median	345.95
Mode	---
Standard Deviation	245.87
Variance	60,452.24
Skewness	1.05
Kurtosis	4.44
Coefficient of Variability	0.63
Range Minimum	1.30
Range Maximum	2,091.15
Range Width	2,089.85
Mean Standard Error	1.10



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.30
95%	80.05
90%	118.80
85%	150.70
80%	179.24
75%	206.35
70%	233.66
65%	261.14
60%	288.37
55%	316.33
50%	345.95
45%	377.62
40%	410.11
35%	446.31
30%	486.45
25%	531.72
20%	581.04
15%	644.14
10%	726.28
5%	857.69
0%	2,091.15

End of Forecast

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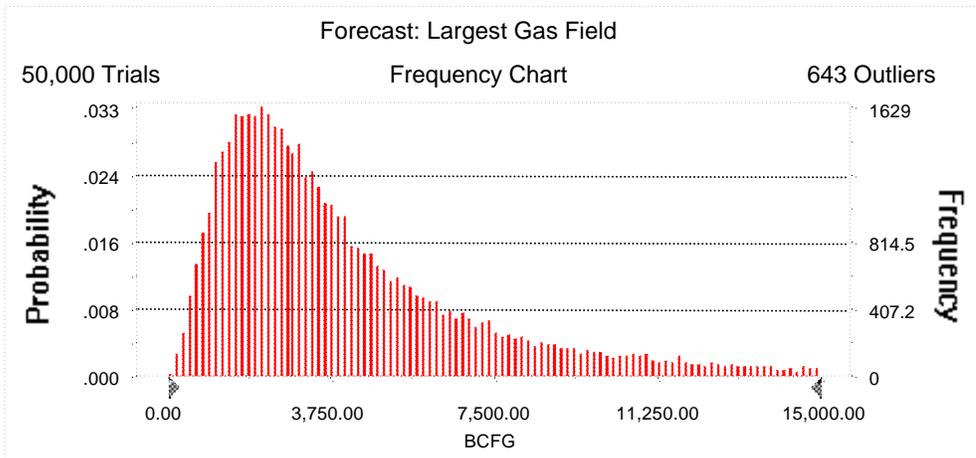
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 15,000.00 BCFG
 Entire range is from 52.23 to 17,997.50 BCFG
 After 50,000 trials, the standard error of the mean is 14.30

Statistics:

	<u>Value</u>
Trials	50000
Mean	4,196.36
Median	3,238.06
Mode	---
Standard Deviation	3,198.41
Variance	10,229,821.58
Skewness	1.61
Kurtosis	5.68
Coefficient of Variability	0.76
Range Minimum	52.23
Range Maximum	17,997.50
Range Width	17,945.26
Mean Standard Error	14.30



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	52.23
95%	903.66
90%	1,224.18
85%	1,492.75
80%	1,735.27
75%	1,970.83
70%	2,201.34
65%	2,437.83
60%	2,689.00
55%	2,957.87
50%	3,238.06
45%	3,549.58
40%	3,907.15
35%	4,312.31
30%	4,813.68
25%	5,411.96
20%	6,153.15
15%	7,138.04
10%	8,597.36
5%	11,092.88
0%	17,997.50

End of Forecast

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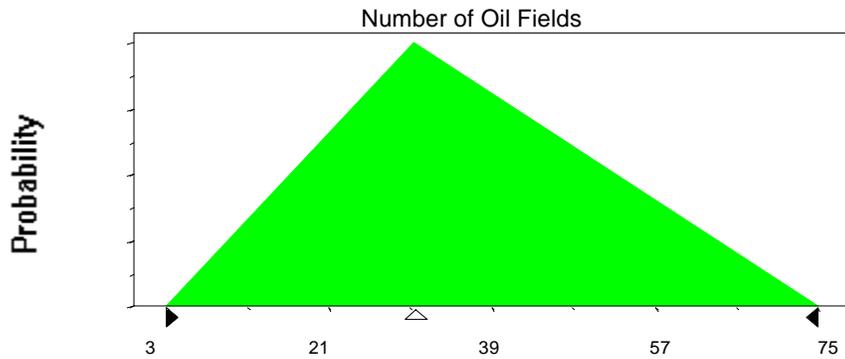
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	3
Likeliest	31
Maximum	75

Selected range is from 3 to 75
Mean value in simulation was 36



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	98.69
Standard Deviation	260.22

Shifted parameters

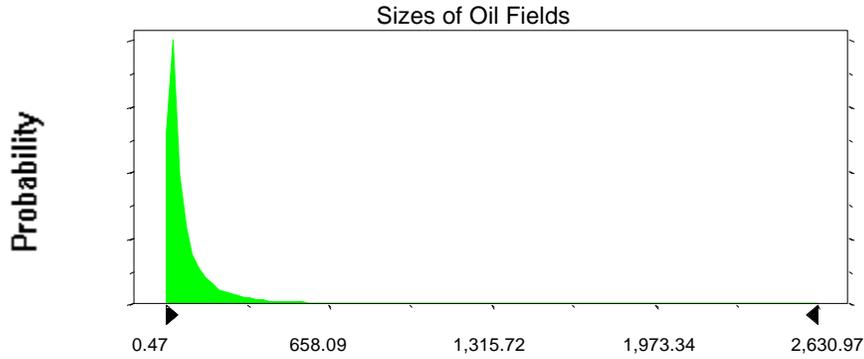
103.69
260.22

Selected range is from 0.00 to 2,995.00
Mean value in simulation was 93.49

5.00 to 3,000.00
98.49

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Assumption: Sizes of Oil Fields (cont'd)



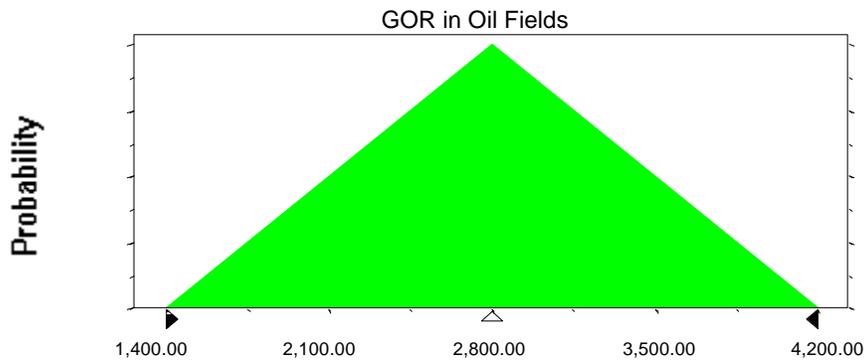
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,400.00
Likeliest	2,800.00
Maximum	4,200.00

Selected range is from 1,400.00 to 4,200.00

Mean value in simulation was 2,796.95



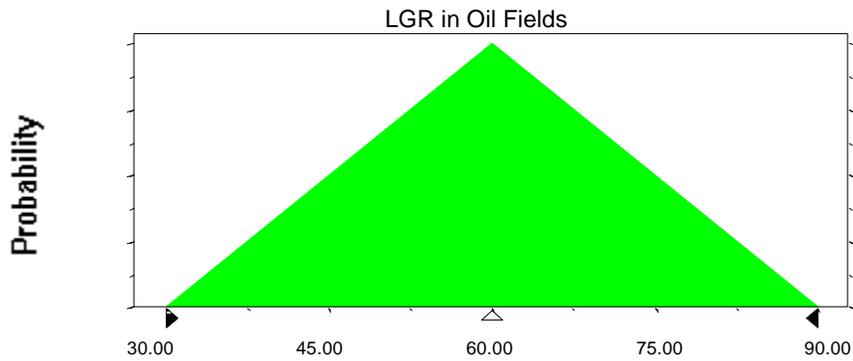
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00
Mean value in simulation was 59.93



Assumption: Number of Gas Fields

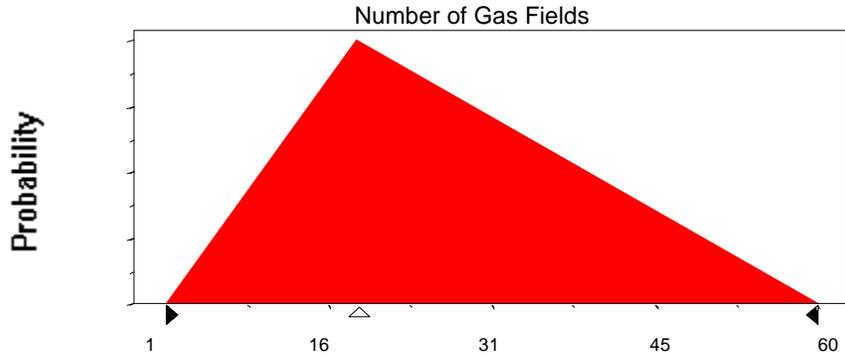
Triangular distribution with parameters:

Minimum	1
Likeliest	18
Maximum	60

Selected range is from 1 to 60
Mean value in simulation was 26

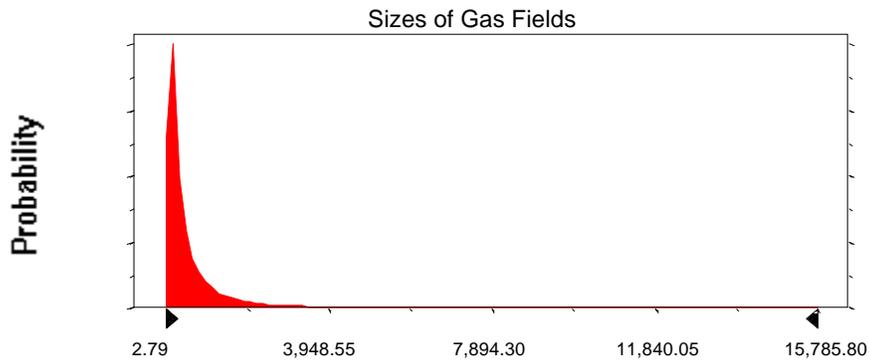
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	592.17	622.17
Standard Deviation	1,561.30	1,561.30
Selected range is from 0.00 to 17,970.00		30.00 to 18,000.00
Mean value in simulation was 563.92		593.92



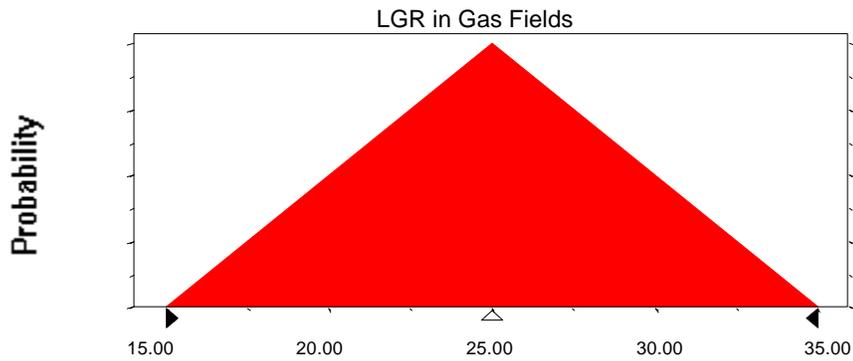
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	15.00
Likeliest	25.00
Maximum	35.00

Selected range is from 15.00 to 35.00
Mean value in simulation was 24.99



End of Assumptions

Simulation started on 7/30/99 at 16:03:02
Simulation stopped on 7/30/99 at 16:38:31